Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

SECRET

COMIT 75-0237

DD/A 75-1328

19 MAR 1975

Executive Registry
175-4001/1

MEMORANDUM FOR: Director of Central Intelligence

THROUGH: Deputy Director for Administrati

[redacted] MAR 1975

25X1

SUBJECT: Request for Additional Funds to Upgrade the Agency's Computer Systems and Supporting Utilities

REFERENCE: DDA Memorandum to DCI, same subject, dtd. 14 Feb 75 (DDA 75-0684)

1. In the attached memorandum the DDA describes the growing problem which OJCS has in trying to meet increasing requirements for computer support with existing equipment and facilities. He points out that although a comprehensive reequipping plan was developed last year, lack of funds has made it impossible to proceed with the plan. He goes on to describe an opportunity which has been presented because of a change in IBM pricing plans and which would make the purchase of our largest computer, the IBM 360/195, both practical and economical. In brief, the new pricing plan permits us to apply more of the past rentals to the present cost of the machine and thus to buy a $7.5 million computer for about $3.8 million.

2. Taking this opportunity as a point of departure, the DDA has had OJCS develop a new equipment plan, which is attached to his memorandum. It calls for the phased installation of four large computers of the IBM 370 series beginning with the first 370/168 in FY 1976 and adding three others over the next two years. In combination with the 360/195 these computers are expected to be adequate to support the growing demands being made for computer service.

3. In order to achieve this goal, the proposal requests reserve releases of $1,769,000 in FY 1975 and $2,645,000 in FY 1976. Only

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

SECRET

[redacted]

25X1

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

	UNCLASSIFIED		CONFIDENTIAL		SECRET

OFFICIAL ROUTING SLIP

TO	NAME AND ADDRESS	DATE	INITIALS
1	DDA		
2			
3			
4			
5			
6			

	ACTION		DIRECT REPLY		PREPARE REPLY
	APPROVAL		DISPATCH		RECOMMENDATION
	COMMENT		FILE		RETURN
	CONCURRENCE		INFORMATION		SIGNATURE

Remarks:

The original of the attached was returned to DDA on 26 March 75. In checking with DDA re the status we learned that it was returned to OJCS for a rewrite. Perhaps the current document DDA 75-2333 replaces it. At any rate, we are returned the attached copies for disposition.

ER/Eunice
20 May 75

FOLD HERE TO RETURN TO SENDER	
FROM: NAME, ADDRESS AND PHONE NO.	DATE

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

	UNCLASSIFIED		CONFIDENTIAL		SECRET

FORM NO. 1-67 237 Use previous editions ☆ GPO : 1974 O - 535-857 (40)

Hold - 14 April

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

SENDER WILL CHECK CLASSIFICATION TOP AND BOTTOM

	UNCLASSIFIED		CONFIDENTIAL		SECRET

OFFICIAL ROUTING SLIP

Executive Registry
75-4701/2

TO	NAME AND ADDRESS	DATE	INITIALS
1	DDA BX-4	26 MAR 1975	jfbk
2	DCI	3/29/75	WEC/jfp
3	DDA		
4			
5			
6			

	ACTION		DIRECT REPLY		PREPARE REPLY
	APPROVAL		DISPATCH		RECOMMENDATION
	COMMENT		FILE		RETURN
	CONCURRENCE		INFORMATION		SIGNATURE

Remarks:

(1) Briefing pls —
(2) Could you include a report of the principal users + projections thereof? —

FOLD HERE TO RETURN TO SENDER

FROM: NAME, ADDRESS AND PHONE NO.	DATE
John D. Iams, Comptroller	

	UNCLASSIFIED		CONFIDENTIAL		SECRET

FORM NO. 237 Use previous editions (40)
1-67

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

	UNCLASSIFIED		CONFIDENTIAL		SECRET

EXECUTIVE SECRETARIAT

Routing Slip

TO:			ACTION	INFO	DATE	INITIAL
	1	DCI				
	2	DDCI				
	3	S/MC				
	4	DDS&T				
	5	DDI				
	6	DDM&S				
	7	DDO				
	8	D/DCI/IC				
	9	D/DCI/NIO				
	10	OGC				
	11	OLC				
	12	IG				
	13	Compt	✓			
	14	D/Pers				
	15	D/S				
	16	DTR				
	17	Asst/DCI				
	18	AO/DCI				
	19					
	20					
	21					
	22					
		SUSPENSE _____ Date				

Remarks:

For NSDD & recommendation to DCI

STAT

Executive Secretary

18 Feb

Date

3637 (3-74)

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Executive Registry
75-4701

DD/A 75-0684

14 FEB 1975

MEMORANDUM FOR: Director of Central Intelligence

SUBJECT : Request for Additional Funds to Upgrade the Agency's Computer Systems and Supporting Utilities

1. Action Requested: It is requested that you approve a request for reserve release of $1.9 million in FY 75 and $2.7 million in FY 76 to permit an expansion of the computing capacity of the Office of Joint Computer Support. Such a release will permit the acquisition of additional computer equipment, an increase in central utilities to support this computer enhancement and the preparation of space for these computers.

2. Background: During FY 74, OJCS studied computer requirements and prepared a Computer Systems Plan dated June 1974. This Plan provided for increased capacity, improved reliability, and more efficient software and equipment during the period FY 74 through FY 78. The essence of the Plan was the replacement of the then installed 360 model computers with IBM 370/168 equipment over a period of several years beginning with the installation of the first 168 system in July 1975.

Funds for this Plan were included in the office budgetary submission for FY 75 and FY 76, but these funds were not approved. The ensuing lack of capital has prevented action to implement the Plan. While needed action cannot be taken because of the lack of funds, computer requirements continue to grow. To highlight a few of these:

a. The COMIREX computer program for overhead reconnaissance systems is being improved for the management of current requirements and, an Accounting and Management System is being developed for a new overhead reconnaissance system.

b. The Generalized Information Management (GIM) System has grown from four to seventeen large user data bases in one year. This system processes data for the budget, financial reports,

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

25X1

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

personnel staffing, security case processing, medical records, logistics inventory control, contract information, imagery analysis, locator information, and missile events. Use of the GIM System has resulted in the establishment of five Data Access Centers and additional computer terminals in user offices.

c. The current interactive computer system allows users in 36 offices to process data by communicating directly with a computer through 200 remote terminals. During the past year the total hours of connect time (length of time a terminal is in use) has increased from 78,000 hours during CY 73 to 101,000 hours during CY 74. With the limitation in computer capacity, this increased use impacts adversely on the timeliness of the computer's response to the users' input and output operations. Performance degrades rapidly as the number of active users on the system exceeds 65, a situation which is occurring with increasing frequency.

d. Support for the Central Reference Service has more than doubled since October 1973, when the dedicated CRS computer was removed and OJCS absorbed that Office's workload. We expect continuing increase in CRS workloads until such time as SAFE becomes a fully operational system. SAFE computer equipment is not included in the OJCS Computer Systems Plan at this time.

e. OJCS computer support to the Office of Research and Development has quadrupled since June 1974 when that Office's computer was removed.

f. On-going external investigations of the Agency's operations will very likely result in recommendations for major changes in the Agency's records and file systems. Although OJCS has no way of estimating workloads required for such systems, we believe they will have a major impact on the Agency's computer resources.

To cope with the continuing growth of requirements and to take full advantage of the most cost/effective financial arrangements, the OJCS Computer Systems Plan has been revised. Basically, the revised

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Plan calls for purchase of the 360/195 system because of the long-term economics that can be realized if this equipment is purchased prior to June 1975. In addition, it calls for long-term leasing of the Agency's newer equipment and the orderly replacement of the other computers with four 370/168's over a period of three years. These steps will enable us to keep pace with growing requirements, provide improved backup, make better use of space, employ more efficient computer technology, and realize cost savings in meeting ADP requirements. The attachment provides additional detail from the revised Plan showing the workload growth plotted against system capacity, the principle steps involved, the utility and ADP costs.

Ordinarily, it would be inappropriate to consider a reserve release for funding this type of activity. We believe that it is now appropriate to consider this option as a result of certain recent changes in the IBM pricing plans. These changes permit substantial savings to accrue to this Agency by taking action at this time. The International Business Machine Corporation has presented two plans in their most recent government contract which are advantageous to this Agency. The first plan, the Alternate Payment Plan, provides for purchases of certain equipment under financial conditions which take into account previous rental payments. The OJCS Computer Systems Plan as revised, would take advantage of this option to purchase the IBM 360/195 computer system which we are currently leasing. The purchase cost of this system would be spread over FY 75 and FY 76. Purchased equipment does require continuation of an annual maintenance program, but does not require, obviously, annual rental. The total investment in purchases, including maintenance for FY 75 through FY 80, is $5,735,000. The lease of this machine for this same period would be $14,400,000. Thus, purchases now would save the Agency $8,665,000. Because we are in a position to take advantage of this potential saving this year, we believe that this situation warrants consideration of reserve release.

The second IBM plan, Term Lease Plan, permits us to lease equipment for a specified leasing period. We propose to use this plan as the means of leasing the 370/168 equipment through 1980. The advantage of this particular plan is that the lessee is not charged overtime as is now the case. While we cannot calculate this savings, it is obvious that there will be some, and these could represent a significant amount.

3. Staff Position: This Directorate considers it essential to move ahead with the needed changes and growth in the Agency's computer facilities. Present computer resources provide no redundancy for back-up operations when computers become inoperative and little flexibility and capacity for additional workloads. The recent

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

experience of inputting the FY 76 budget demonstrates the narrow margin of computer capability currently available to us. With the load of the FY 76 budget added to user requirements already operating in an interactive (on-line) mode, response time increased sharply from a matter of seconds to times which exceeded 20 minutes. The entire system was on the verge of collapse. At one point, one of our central processing units was operating at 96 percent of capacity. Forty percent is considered to be very efficient use of such a processing unit. If we do not move ahead with this program, we will be faced with the inability to handle present information systems expeditiously. Indeed, we run the risks that response times will be so poor as to encourage the return to manual systems. Obviously, we can seek to develop an acceptable Agency-wide priority system which will permit us to deal with only that portion of requirements which can be efficiently handled by existing equipment. Such a course of action would mean that if new priorities bumped systems already on the computer those latter systems would have to be reconverted to manual systems at great expense, involving considerable manpower. The Agency's basic approach in dealing with a world of limited financial and personnel resources has been to enhance productivity. If we do not expand the capabilities of OJCS, we are facing a limit to our productivity increases.

The proposal also includes funds necessary to provide additional utilities to support the Office of Joint Computer Support. Our present utility capacity is in the marginal area in terms of both electrical power and air conditioning. Because of the nature of the electrical problem, it is necessary to increase the utilities available to OJCS to avoid reducing those which support the Office of Communications.

We believe that the choices are clear if we wish to continue our utilization of computers to more efficiently produce intelligence and manage the Agency. If we do not expand, our computer capabilities will stagnate and retrogress.

4. Recommendation: I recommend that additional FY 75 and FY 76 funds be approved for the following:

FY 75 Funds:

Site preparation	$ 819,000
Additional 2500 KW generator	750,000
New 400 HZ uninterruptible power source	200,000
Total unfunded requirement FY 75	$1,769,000

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

FY 76 Funds:

Additional 60 HZ uninterruptible power source	$ 500,000
Enhancement of water chiller to 700 tons	175,000
ADP equipment as per Plan	1,970,000
Total FY 76 commitment	$2,645,000

[redacted] ILLEGIB

John F. Blake
Deputy Director
for
Administration

Attachment: Summary of Plan

APPROVED DATE

DISAPPROVED DATE

Distribution:
0 - Addee (for return to OJCS via DD/A)
1 - DDCI
1 - ER ✓
2 - DD/A
1 - D/OL
1 - GFD Chrono

ORIGINATOR:

Harry E. Fitzwater 11 February 1975

25X1 Rewritten: DDA/AR/[redacted]yt (14 February 1975)

25X1

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Summary of OJCS Computer System Plan

January 1975

Contents

1. Batch Workload and Capacity

2. General Purpose Time Sharing Workload and Capacity

3. GIM Production Workload and Capacity

4. Outline of OJCS Computer System Plan

5. Estimated Cost for ADP Equipment Rentals, Purchases, and Maintenance (including ORACLE Mass Storage System)

6. Estimate Cost for Preparing Additional Computer Space and Increasing Central Utilities

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

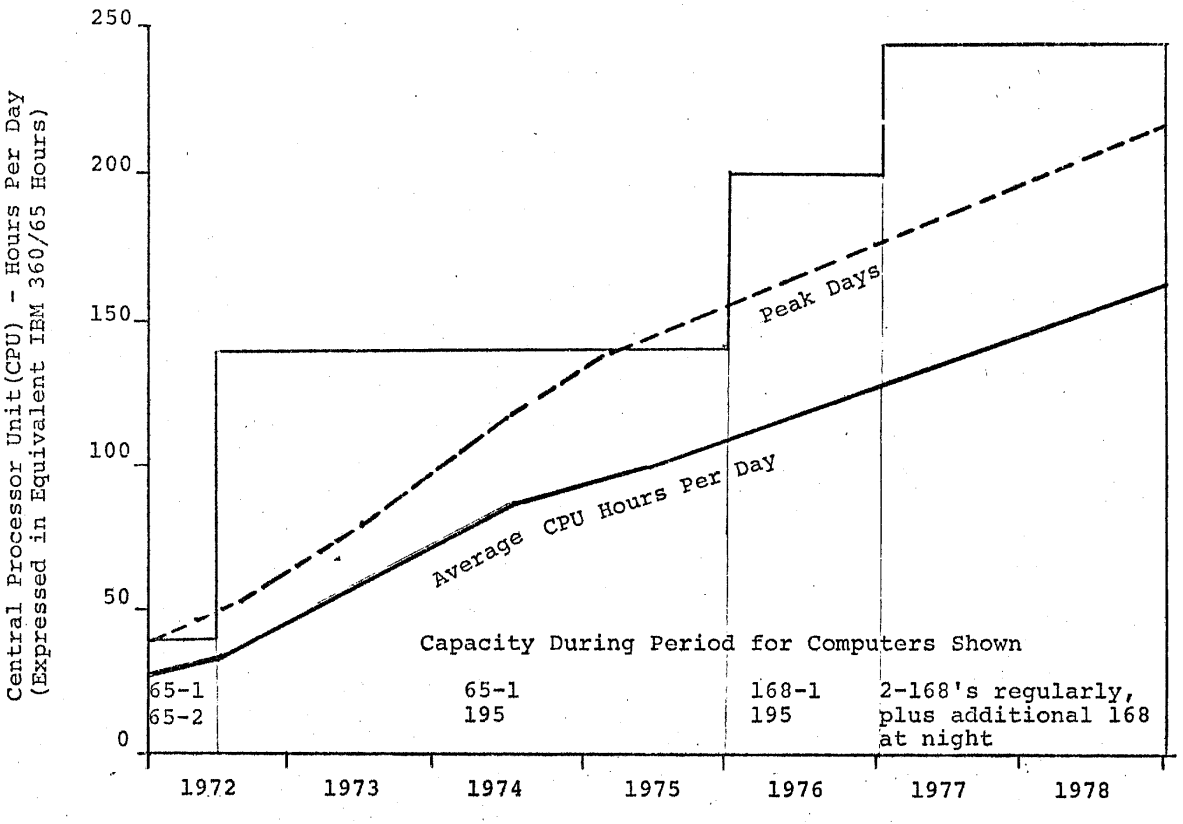
Summary of OJCS Computer System Plan

January 1975

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Batch Workload and Capacity

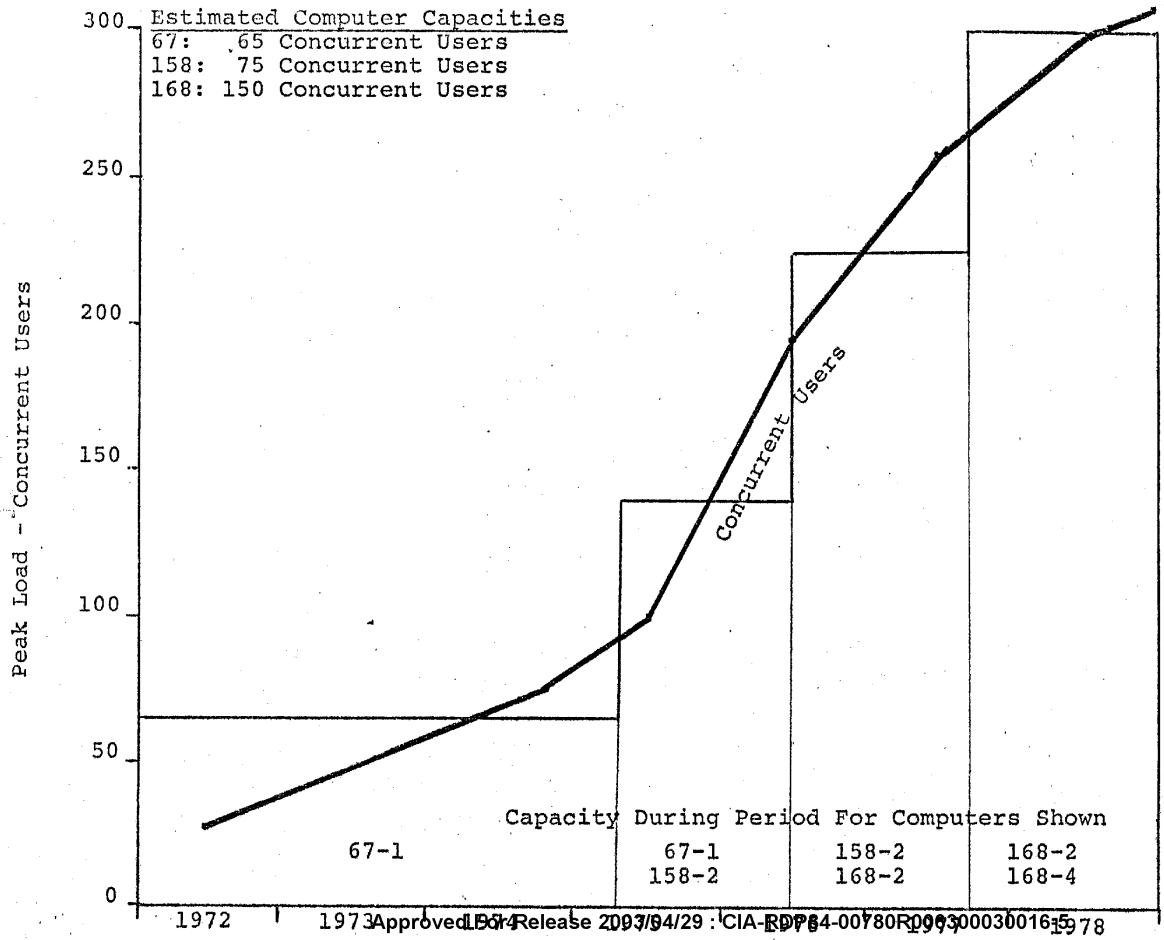


Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

OJCS

General Purpose Time Sharing Workload and Capacity

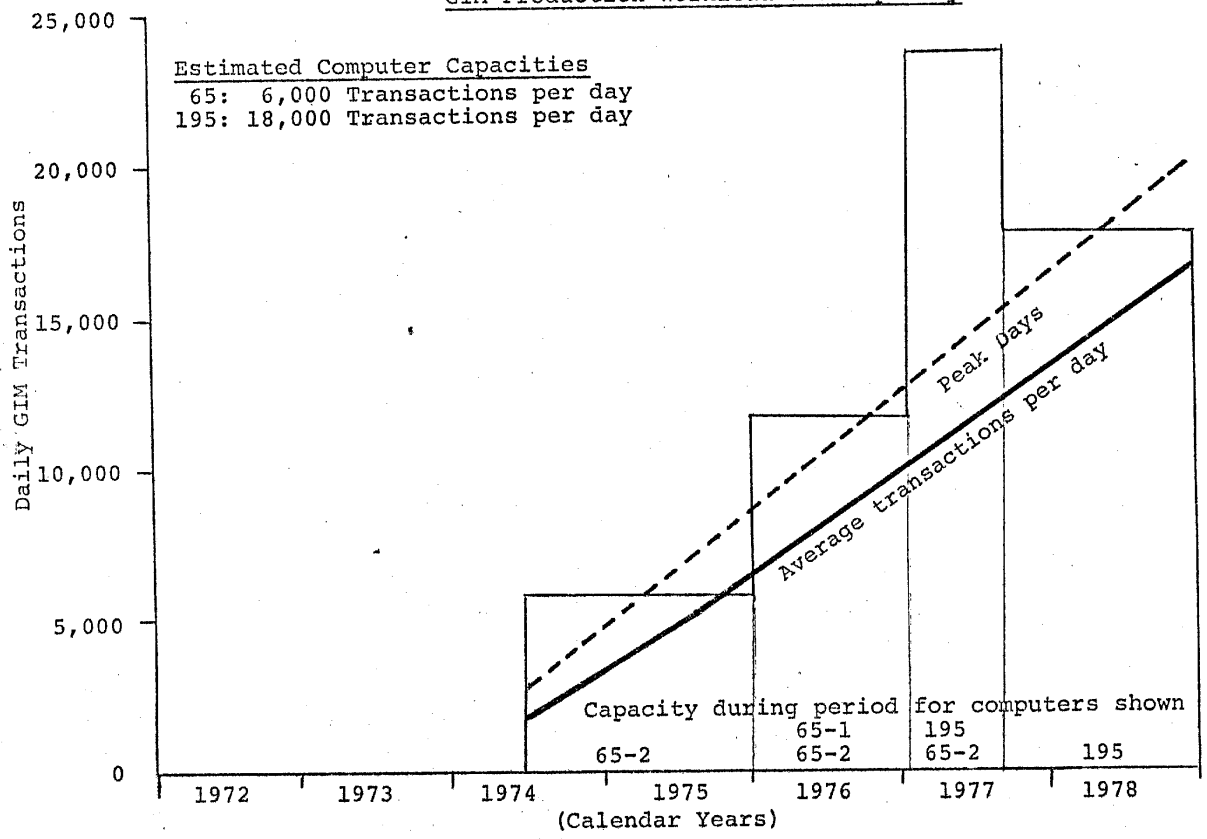


Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

OJCS

GIM Production Workload and Capacity



Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

OUTLINE OF OJCS COMPUTER SYSTEM PLAN - JANUARY 1975

Milestone No.	Date	Action	Comment	APPLICATION OF COMPUTERS			
				Batch	GIM	General Purpose Timesharing	Special Purpose Online
1.	Mar 75	Purchase IBM 360/195 System	It is advantageous to purchase this system because increased rental credits can be used to reduce the purchase price, it is a powerful system that can be operated compatibly with 370 systems, it has a useful life through FY-80, annual costs for maintenance after purchase are slightly more than $200,000, purchase and maintenance costs over two years are equal to rental for the same period.	-	-	-	-
2.	July 75	Install ORACLE Mass Storage System on first floor	Equipment space and utilities for ORACLE have been completed.	-	-	-	-
3.	July 75	Increase memory on 158-1 from from 2 to 3 million bytes	This is necessary to handle the increased workload for CRS applications.	-	-	-	-
4.	July 75	Begin testing of ORACLE	This milestone starts a one-year preparation for production. Initial testing will test functions and system specs. Later, tests for certain application programs will be conducted. Finally, parallel tests for regular production jobs will be conducted.	-	-	-	-
5.	Jan 76	Install 168-1 (4 million bytes of memory) on ground floor	168-1 will be used with the 195 for batch processing, and it will also be for special purpose on-line applications. Two systems will become available: the 65-1 from batch and the 158-1 from special purpose applications.	168-1 195 * 65-1	65-2	67-1 158-2	*158-1

*Systems in transition to another service or function

SECRET

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Milestone No.	Date	Action	Comment	APPLICATION OF COMPUTERS			
				Batch	GIM	General Purpose Timesharing	Special Purpose Online
6.	Feb 76	Switch 65-1 to GIM	A one-month period has been allowed to complete the distribution of GIM applications between two systems: 65-2 which is currently supporting GIM and 65-1 which became available from the installation of 168-1.	168-1 195-1	65-2 65-1	67-1 158-2	*158-1
7.	Jun 76	Complete preparation of computer space on first floor and utilities for balance of Computer System Plan (OL responsibility)	OL has completed general specifications and cost estimates for this work. Relocation plans, additional funding, engineering specifications, and GSA negotiations are essential to completion of this milestone.	-	-	-	-
8.	July 76	Install 168-2 (4 million bytes of memory) on first floor	The 168-2 will be used as a replacement for the 67-1 which (together with 158-2) has been supporting general purpose time-sharing applications. This move will permit the phasing out of System/360 software required with the 67 computer and standardization with System/370 software on both the 158-2 and 168-2.	168-1 195	65-2 65-1	168-2 158-2 * 67-1	*158-1
9.	July 76	Release 158-1	A six-month period is allowed to complete a smooth transition of CRS and other special purpose on-line applications from 158-1 to 168-1. The 168-1 is also concurrently supporting batch services.	168-1 195	65-2 65-1	168-2 158-2 * 67-1	168-1
10.	July 76	Release or reutilize 67-1	The 67-1, an Agency-owned system, may be applied to a stand-alone application requirement, transferred to another Agency, or stored for future use. Continued cost, if retained, would be $44K per year for maintenance.	168-1 195	65-2 65-1	168-2 158-2	168-1

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Milestone No.	Date	Action	Comment	APPLICATION OF COMPUTERS			
				Batch	GIM	General Purpose Timesharing	Special Purpose Online
12.	Jan 77	Install 168-3 (4 million bytes of memory - Multi processor) on first floor	The 168-3 will replace the 195 for batch processing. The batch system will consist of the 168-3 and 168-1 The 168-2 (general purpose timesharing support) will also be equipped with multi-processing hardware. At night, this computer will be taken out of timesharing service and used with the 168-3 to test multi-processing with System/370 operating system software.	168-3 168-1 *195	65-2 65-1	168-2 158-2	168-1
13.	Feb 77	Transfer GIM production from 65-1 and 65-2 to the 195	The 195 will replace the 65-1 and 65-2 and provide increased capacity for GIM production.	168-3 168-1	195 * 65-1 * 65-2	168-2 158-2	168-1
14.	Mar 77	Release or reutilize 65-1	The 65-1, an Agency-owned system, may be applied to a stand-alone application requirement, transferred to another Agency, or stored for future use. Continued cost, if retained, would be $34K per year maintenance.	168-3 168-1	195 * 65-2	168-2 158-2	168-1
15.	Oct 77	Install 168-4 (4 million bytes of memory) on ground floor	The 168-4 will replace the 158-2 which (together with the 168-2) has been supporting general purpose timesharing applications.	168-3 168-1	195 * 65-2	168-4 168-2 *158-2	168-1
16.	Oct 77	Release or reutilize 65-2	By this date the 195 will be handling all GIM production. The 65-2, an Agency-owned system may be applied to a stand-alone application requirement, transferred to another Agency, or stored for future use. Continued cost, if retained, would be $59K per year maintenance.	168-3 168-1	195	168-4 168-2 *158-2	168-1

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

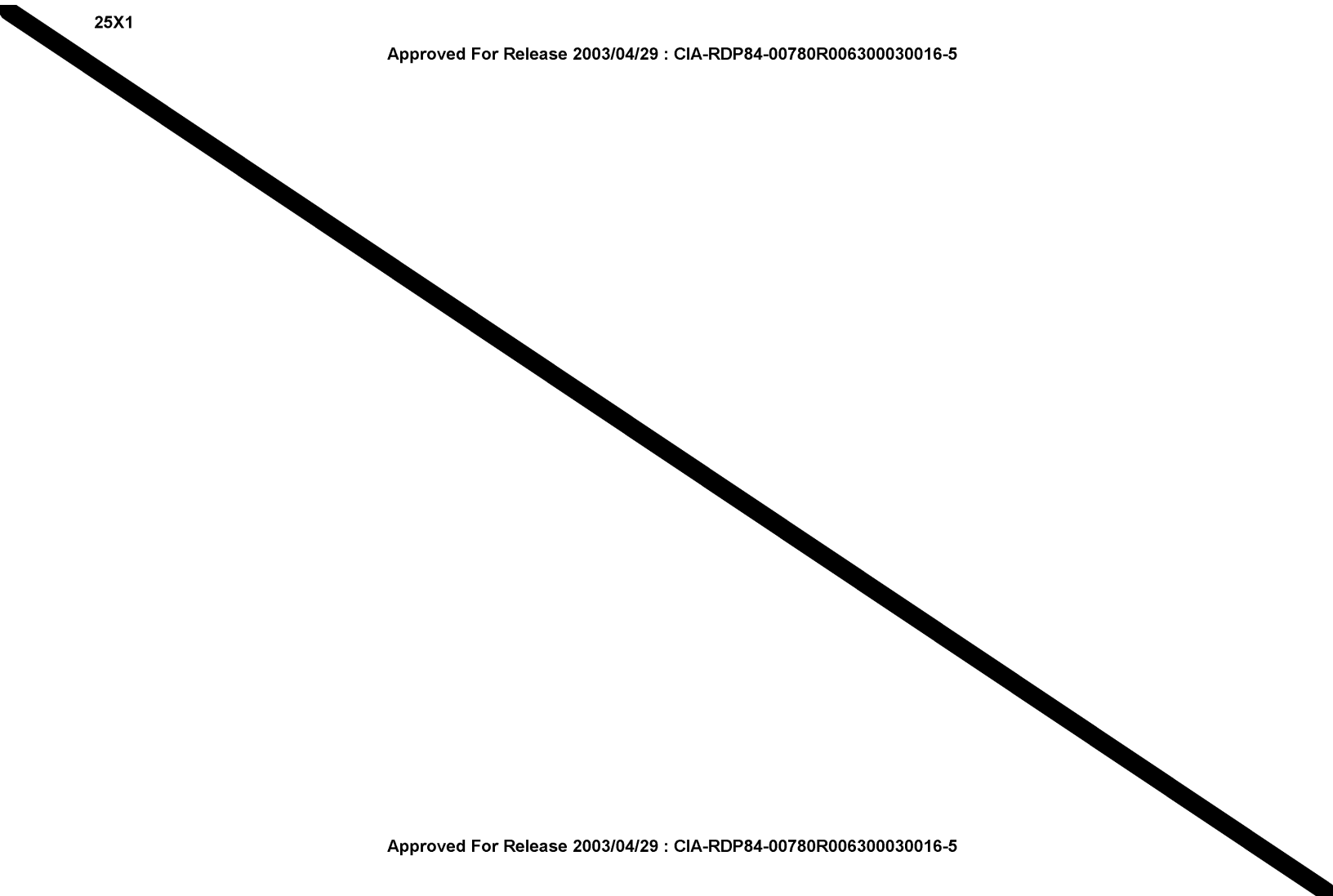
Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Milestone No.	Date	Action	Comment	ALLOCATION OF COMPUTERS			
				Batch	GIM	General Purpose Timesharing	Special Purpose Online
17.	Nov 77	Release the 158-2	One month has been allowed to complete transfer of work from 158-2 to 168-4. At this point, 168-2 and 168-4 will be supporting general purpose timesharing applications.	168-3 168-1	195	168-4 168-2	168-1
18.	Nov 77	Exchange workloads on 168-1 and 168-2	The purpose of this step is to consolidate batch work on the two multiprocessor systems, 168-2 and 168-3.	168-3 168-2	195	168-4 168-1	168-2
19.	Jan 78	Begin Multi-processor batch production with 168-2 and 168-3					

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

25X1

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5



Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5

January 30, 1975

Estimated Cost for Preparing Additional Computer Space and Increasing Central Utilities

Description	Unfunded FY-1975	Unfunded FY-1976
Site preparation	$ 819,000	
Additional 2500 KW generator	750,000	
New 400 Hz uninterruptible power source	200,000	
Additional 60 Hz uninterruptible power source		$ 500,000
Enhancement of water chiller to 700 tons		175,000
	$1,769,000	$ 675,000

Approved For Release 2003/04/29 : CIA-RDP84-00780R006300030016-5